

# IDAHO DEPARTMENT OF FISH & GAME

Joseph C. Greenley, Director

Annual Performance Report



ANNUAL SURVEY OF THE SALMON AND STEELHEAD SPORT  
FISHERY HARVEST IN IDAHO  
Job 1. Estimates of the 1976 Harvest of Salmon  
and Steelhead (Survey)

Period Covered: 1 March 1976 to 28 February 1977

by

David W. Ortmann  
Anadromous Fishery Supervisor

August, 1977

# JOB PERFORMANCE REPORT

State of	<u>Idaho</u>	Name:	<u>ANNUAL SURVEY OF THE SALMON AND</u>
			<u>STEELHEAD SPORT FISHERY HARVEST</u>
Project No.	<u>F-18-R-23</u>		<u>IN IDAHO</u>
Job No.	<u>1</u>	Title:	<u>Estimates of the 1976 Harvest</u>
			<u>of Salmon and Steelhead (Survey)</u>

Period Covered: 1 March 1976 to 28 February 1977

## ABSTRACT

No fishing for salmon was permitted in Idaho in 1976 because of an insufficient run.

Also because of a small run, steelhead fishing was not permitted in the spring of 1976. A slight improvement of the steelhead run into Idaho in the fall of 1976 led to catch-and-release regulations on the Clearwater River system, and a minor consumptive fishery on the Snake and Salmon Rivers. An estimated 2,247 steelhead were taken in the consumptive fishery, and 1,996 steelhead were handled in the catch-and-release fishery.

Author:

David W. Ortmann  
Anadromous Fisheries Supervisor

## RECOMMENDATIONS

Continue the annual survey of salmon and steelhead harvests.

Continue to emphasize angler contacts on the Snake, Salmon and Clearwater rivers to insure accurate recording of stream sections.

## OBJECTIVES

To estimate the 1976 salmon and steelhead harvest in Idaho.

## TECHNIQUES USED

The 1976 spring chinook salmon run over Lower Granite Dam, at 20,100 fish, was too small to allow a fishery in Idaho. Therefore, no harvest survey was done for salmon.

There was no fishing for steelhead permitted in the spring of 1976.

The fall 1976-spring 1977 summer steelhead run over Lower Granite Dam, at 22,600 fish, was insufficient to allow a normal fishery. Therefore, restrictive fishery regulations were established as follows:

## SEASONS AND LIMITS

CLEARWATER RIVER DRAINAGE, INCLUDING CLEARWATER RIVER ARM OF LOWER GRANITE RESERVOIR - OPEN to fishing for steelhead October 1 to December 31.

EXCEPTIONS: The Clearwater River arm of Lower Granite Reservoir from Memorial Bridge downstream, the North Fork of the Clearwater River from its mouth upstream to Ahsahka highway bridge and from Dworshak Dam 300 feet downstream, the Selway River from cable car below Selway Falls fishway upstream to Meadow Creek bridge - CLOSED to fishing for steelhead.

All steelhead caught must be released immediately. Only single hook artificial lures or flies shall be used and hooks shall be barbless or have barbs bent closed.

SNAKE RIVER ARM OF LOWER GRANITE RESERVOIR AND THE SNAKE RIVER FROM LOWER GRANITE RESERVOIR UPSTREAM TO THE WASHINGTON-OREGON BORDER - CLOSED to fishing for steelhead.

SNAKE RIVER FROM WASHINGTON-OREGON BORDER UPSTREAM TO 400 FEET BELOW HELLS CANYON DAM, AND THE SALMON RIVER (EXCLUDING TRIBUTARIES) - OPEN to fishing

for steelhead October 1 to December 31.

Bag and/or possession limit one steelhead. Season limit - three (3) steelhead.

A harvestable surplus was not expected in the Clearwater system; therefore, only a catch-and-release fishery was established. The hatchery segment of the Salmon River run was expected to have a harvestable surplus, so a minor consumptive fishery was established for the Snake River and Salmon River.

To encourage protection of wild stocks, we posted "If He's Wild - Let Him Go!" posters in areas of prominence to anglers (Fig. 1). We also printed a facsimile on the steelhead fishing regulations.

The steelhead catch survey was patterned after surveys of past years. All steelhead anglers were required to purchase a steelhead permit (Fig. 2). Anglers who had not voluntarily returned their permits to the Department of Fish and Game by the end of February, 1977, were sent a questionnaire and were requested to return their permits or supply catch data on a duplicate permit form (Fig. 3).

Anglers were also asked to record the number of days fished in each of the major drainages; the Snake, Clearwater, and Salmon. The questionnaire, with an accompanying map (Fig. 4) requested that anglers record the river section where each fish was caught. A follow-up letter was sent to non-respondents after about one month.

Data compilations were done by machine sorting. Direct proportion expansions were used to derive total fishing pressure and catch estimates.

#### FINDINGS

A total of 5,870 steelhead permits was issued in 1976. About 90% of the steelhead permit holders sampled indicated that they had actually fished for steelhead (Table 1). 33.6% of the anglers who fished caught at least one steelhead.

In the consumptive fishery on the Snake and Salmon Rivers, 2,247 steelhead were caught. The predominate catch was from the Salmon River, with the lower Salmon River (section 1) contributing most heavily to the catch. Sections 4 and 5, which comprise the "River of No Return" area, also contributed a relatively heavy catch. October produced more fish than the other months of the fishery (Table 2).

In the catch-and-release fishery on the Clearwater River 1,996 fish were caught and released. The lower Clearwater provided nearly all of the catch (Table 2).

In sampling fishing effort, 1,424 permittees provided data on the number of days they fished. An expansion of the data gave an estimate of 21,952 angler days of effort on steelhead in 1976. Most fishing pressure was applied to the consumptive Salmon River fishery, 17,805 angler days, compared to only

# STEELHEAD TROUT

## - CAN YOU TELL THE DIFFERENCE ?



**Hatchery  
Fish**



BENT or CROOKED  
RAYS IN DORSAL FIN

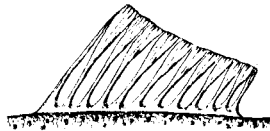


DORSAL FIN MAY BE  
COMPLETELY DUBBED  
OFF, GIVING 'CLIPPED'  
APPEARANCE

Pectoral (side) or Pelvic (belly) fins may also contain crooked rays  
or have 'clipped' appearance



**Wild  
Fish**



DORSAL FIN RAYS , not bent or crooked

All other fins with straight , branched fin rays

IDAHO FISH AND GAME

**HELP THE  
WILD RUNS**

**If he's wild- Let him go!**

Figure 1. Poster used to encourage release of wild steelhead.

IDAHO DEPARTMENT OF FISH AND GAME

1976 STEELHEAD TROUT PERMIT—\$2.00

**NO 67-005209** EXPIRES DECEMBER 31, 1976  
 Issued by 7-1228 R3 Vendor No. 3715  
 1976 Fishing License Type and No. 22 025914

ENTER STEELHEAD CATCH BELOW.  
 (See instructions on reverse side.)

Date	Stream	Section
1/05	SALMON	3
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

If no steelhead caught, please mark appropriate box before returning permit.

- ☐ DID NOT FISH FOR STEELHEAD TROUT  
☐ FISHED FOR STEELHEAD, CAUGHT NONE

1976			
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
JANUARY	FEBRUARY	MARCH	APRIL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
MAY	JUNE	JULY	AUGUST
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Complete and return this permit to  
 IDAHO DEPARTMENT OF FISH AND GAME  
 600 South Walnut St., Boise, Idaho 83707

Figure 2. 1976 steelhead permit.

Dear Angler:

Our records show that you purchased a steelhead trout permit in 1976. In order to determine the results of the steelhead fishing season we ask that you please return your steelhead permit or fill out and return the duplicate permit on the reverse side of this letter.

If you participated in the "catch-and-release" fishery on the Clearwater River, please indicate the number of fish caught and released on the permit or duplicate. If you fished on the Salmon River or Snake River, entries should be made in the normal manner.

A map is enclosed to assist you with proper entry of stream sections on your permit.

Also, please answer the following questions and return this letter with your permit:


How many days did you fish for steelhead in Idaho in 1976 (even if you caught no steelhead)?

- a. In the Clearwater River drainage \_\_\_\_\_
- b. In the Salmon River drainage \_\_\_\_\_
- c. On the Snake River \_\_\_\_\_

Thank you very much for your help.

Sincerely,

DEPARTMENT OF FISH AND GAME

  
Joseph C. Greenley  
Director

**EQUAL OPPORTUNITY EMPLOYER**

Figure 3. Steelhead questionnaire for 1976.

D U P L I C A T E

1976 Idaho Steelhead Permit

No.	Date (Day and Month)	Stream	Section
1			
2			
3			

If no steelhead caught, please mark the appropriate box below:

☐

I did not fish for steelhead.

☐

I fished for but caught no steelhead.

Figure 3 (Cont'd.). Steelhead questionnaire for 1976.



Dear Salmon and Steelhead Angler:

Your Idaho Fish and Game Department has initiated an ambitious salmon and steelhead hatchery program to help replace fish lost by dam construction. To evaluate the benefits of this program we must estimate the salmon and steelhead sport catch by major river sections and tributaries.

Your cooperation, by recording salmon and steelhead catches by sections and tributaries, is necessary if the evaluation program is to succeed. Please record each fish caught by section listed below.

**River Section Where Caught**

**Mark Permit As:**

Snake River, Clearwater River to Salmon River . . . . .	Lower Snake
Snake River, Salmon River to Hells Canyon Dam . . . . .	Upper Snake
Clearwater River, mouth to North Fork of Clearwater . . . . .	Lower Clearwater
Clearwater River, North Fork to South Fork of Clearwater . . . . .	Upper Clearwater
Salmon River, mouth to Whitebird Creek . . . . .	Salmon - 1
Salmon River, Whitebird Creek to Little Salmon River . . . . .	Salmon - 2
Salmon River, Little Salmon to South Fork of Salmon . . . . .	Salmon - 3
Salmon River, South Fork to Middle Fork of Salmon . . . . .	Salmon - 4
Salmon River, Middle Fork to Lemhi River . . . . .	Salmon - 5
Salmon River, Lemhi River to Pahsimeroi River . . . . .	Salmon - 6
Salmon River, Pahsimeroi River to East Fork of Salmon . . . . .	Salmon - 7
Salmon River, above the East Fork . . . . .	Salmon - 8

Sections listed above refer only to the main stem of each river. Continue to record catches from tributary streams as you have in past years. (Examples: North Fork of Salmon, Lemhi River, Selway River, Marsh Creek, North Fork of Clearwater, etc.)

Thanks again for your cooperation,  
**IDAHO FISH AND GAME DEPARTMENT**  
 Joseph C. Greenley, Director

**SALMON AND STEELHEAD CATCH LOCATION**

**Reference Map**

Anglers:

Please use this map and the river section description list on the reverse side to record on your permit your salmon and steelhead catches by designated section. Use the river section or tributary name shown on the map. Examples: "Salmon - 5" for catches from main Salmon River between the Middle Fork and Lemhi River; "Salmon - 3" for main river catches between the Little Salmon and South Fork; "Upper Clearwater" for catches between the North Fork and the South Fork. Use tributary names when applicable.

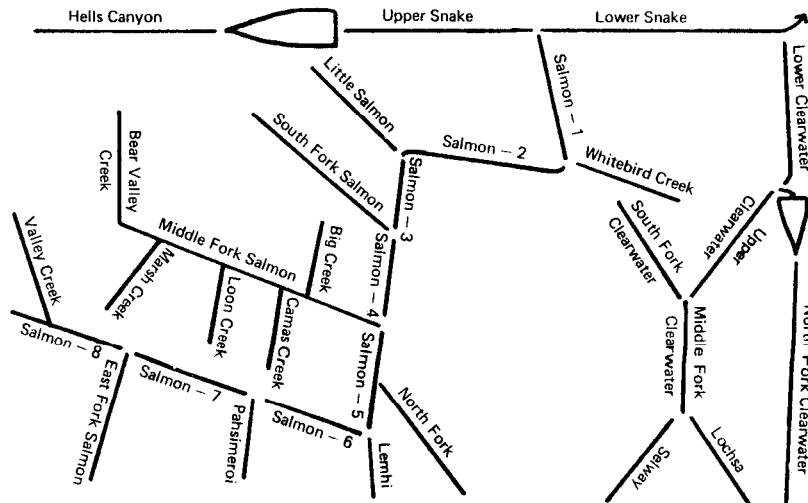


Figure 4. Steelhead catch location instructions and map.

Table 1. Questionnaire and permit data used to compute Idaho steelhead catch estimates for 1976.

- 
- (1) 5,870 permits were issued.
  - (2) Sample size arbitrarily set at 2,520.
  - (3) 2,044 permittees responded by returning permit and/or questionnaire.
  - (4) 2,018 respondents supplied usable information.
  - (5) Estimates and sample size:

<u>Category</u>	<u>Usable sample</u>	<u>Percent of total</u>	<u>Expanded totals</u>
Did not fish	203	10.1	591
Fish for steelhead	1,815	89.9	5,282
a. Did not catch	1,205	59.7	3,507
b. Caught steelhead	610	30.2	1,775
Number of steelhead caught			
a. In catch-and-release fishery			1,996
h. In consumptive fishery			2,247
Total			4,243

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Table 2. Estimated total catch of steelhead by month and stream, Idaho, 1976.

Stream	October	November	December	Unknown	Total
Salmon - 1	323	169	35	44	570
Salmon - 2	131	105	29	6	271
Salmon - 3	143	125	23	6	297
Salmon - 4	282	169	9	17	477
Salmon - 5	227	166	17	17	428
Salmon - 6	15	17	9		41
Salmon - 7		3	3		6
Salmon - 8	3	9			12
Salmon (unknown section)	<u>15</u>	<u>12</u>		<u>20</u>	<u>47</u>
Salmon total	1,139	775	125	110	2,148
Lower Snake	23	15	15		52
Upper Snake	23	12	6	3	44
Snake (unknown section)				<u>3</u>	<u>3</u>
Snake total	46	27	21	6	99
Lower Clearwater	579	274	128	1,001	1,982
Upper Clearwater	<u>9</u>		<u>3</u>	<u>3</u>	<u>15</u>
Clearwater total	588	274	131	1,004	1,996
State total	1,773	1,076	277	1,120	4,243 <sup>1/</sup>

<sup>1/</sup> To determine consumptive catch deduct 1,996 Clearwater total in catch-and-release fishery.

2,920 angler days fished in the Clearwater River catch-and-release fishery (Tables 3, 4, 5).

Statewide, the catch per angler ranged from 0 to 98 steelhead. A breakdown of Salmon-Snake vs. Clearwater catches per angler is not available, but all reported catches exceeding three per angler were obviously from the Clearwater River (Table 6). The extreme reported catch of 98 steelhead might seem questionable. However, this angler is known by the author as a person of high integrity who fishes habitually and with great success.

As mentioned in the "Techniques Used" section we attempted to encourage the voluntary release of wild steelhead in the consumptive fishery. A detailed follow-through on the effectiveness of this effort was not done. It is interesting to note, however, that the questionnaire respondents offered the additional information that 129 steelhead were released on the Salmon River and 11 on the Snake River. Catch expansion would indicate that a minimum of 407 steelhead may have been released in the consumptive fishery.

Idaho residents took 80% of the statewide catch while nonresident anglers caught 20%. The catch by nonresident anglers was proportionally heavier in the Clearwater River and Snake River than it was in the Salmon River (Table 6) .

The reporting period for the 1975-76 fish year is now complete and yearly harvest data, by stream is summarized in Table 7.

Table 3. Estimated fishing pressure for steelhead on the Salmon River, 1976.

<u>Number of days fished</u>	<u>Number of anglers</u>	<u>Fishing pressure (anglers x days)</u>
1	1,047	1,047
2	1,209	2,419
3	690	2,069
4	404	1,617
5	292	1,462
6	173	1,040
7	116	809
8	79	635
9	25	227
10	188	1,877
11	4	40
12	69	823
13	4	47
14	40	556
15	40	596.
16	4	58
20	25	505
21	7	152
22	7	159
26	4	94
30	32	975
36	4	130
40	4	144
45	<u>7</u>	<u>325</u>
Totals <u>1/</u>	4,473	17,805

1/ Columns may not total precisely due to rounding.

Table 4. Estimated fishing pressure for steelhead on the Clearwater River, 1976.

Number of days fished	Number of anglers	Fishing pressure (anglers x days)
1	141	141
2	123	245
3	87	260
4	43	173
5	65	325
6	18	108
7	7	51
8	25	202
9	4	32
10	36	361
11	4	40
12	18	217
14	11	152
15	7	108
19	4	69
20	7	144
21	4	76
30	<u>7</u>	<u>217</u>
Totals <u>1/</u>	610	2,920

1/ Columns may not total precisely due to rounding.

Table 5. Estimated fishing pressure for steelhead on the Snake River, 1976.

Number of days fished	Number of anglers	Fishing pressure (anglers x days)
1	213	213
2	162	325
3	58	173
4	29	116
5	14	72
6	14	87
7	4	'25
9	4	32
10	4	36
20	4	72
21	<u>4</u>	<u>76</u>
Totals <u>1/</u>	509	1,227

1/ Columns may not total precisely due to rounding.

Table 6. Catch of steelhead by resident and nonresident anglers and by stream, 1976.

Stream	Resident anglers		Nonresident anglers	
	Number of fish	Percent	Number of fish	Percent
Clearwater River	1,504	75.4	492	24.6
Snake River	76	76.5	23	23.5
Salmon River	<u>1,819</u>	<u>84.7</u>	<u>329</u>	<u>15.3</u>
Totals	3,399	80.1	844	19.9



Table 7. Estimated steelhead harvest, by fish run year, 1970-1976 (fish run year is calculated from 1 August to 31 July).


Stream or section	1970-'71	'71-'72	'72-'73	'73-'74	'74-'75	'75-'76
Salmon - 1	1,824	1,826	1,296	--	--	--
Salmon - 2	1,163	1,211	1,345	--	--	--
Salmon - 3	1,509	1,242	938	--	--	--
Salmon - 4	1,459	2,004	1,149	--	--	--
Salmon - 5	1,848	2,606	1,183	--	--	--
Salmon - 6	49	219	76	--	--	--
Salmon - 7	20	54	15	--	--	--
Salmon - 8	<u>74</u>	<u>15</u>	<u>21</u>	--	--	--
Salmon total	7,946	9,177	5,963	--	--	0
S.F. Salmon	5	36	61	--	--	--
M.F. Salmon	156	29	27	--	--	--
Other Salmon tribes.	107	65	42	--	--	--
Lower Clearwater	3,790	3,317	5,721	--	--	--
Upper Clearwater	<u>978</u>	<u>254</u>	<u>736</u>	--	--	--
Clearwater total	4,768	3,571	6,457			0
N.F. Clearwater	50	--	23	--	--	--
M.F. Clearwater	291	--	118	--	--	--
Other Clearwater tribes.	200	--	10	--	--	--
Lower Snake	2,395	2,573	2,540	--	--	--
Upper Snake	<u>600</u>	<u>463</u>	<u>354</u>	--	--	--
SNAKE total	2,995	3,036	2,894	--	--	0
Unknown streams	62	93	219	--	--	--
State totals	16,580	16,007	15,814	8,128	726	0

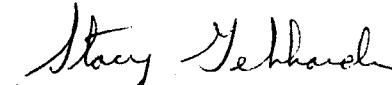
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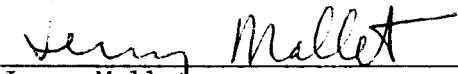
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